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Industrial Analytics & Data Management

Spotfire Offers AI Analytics Solutions Unifying Operational Data for Cross-Functional Decision-Making

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With Malavika Tohani

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Spotfire delivers an enterprise industrial AI analytics platform purpose-built for complex, data-intensive operational environments. Spotfire's distinctive approach, which it calls 'visual industrial AI analytics', pairs interactive visualizations with AI-augmented investigation, data science and real-time data integration, helping engineers, scientists and operations teams uncover insights and make faster, more confident decisions. By bringing together fragmented engineering, operational and business data into a shared analytical environment, Spotfire enables organizations to optimize performance, improve reliability and accelerate problem-solving across industrial workflows. This report provides an overview of the Spotfire platform, touching on its key capabilities, namely, visual data exploration, advanced analytics tools, application configuration and industry-specific workflow features.

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Organizations mentioned

AVEVA, Cloud Software Group, Databricks, Diamondback Energy, Enel, Hemlock Semiconductor (HSC), Liberty Energy, Renesas, Snowflake, Spotfire, STMicroelectronics, TIBCO.

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Spotfire's visual approach to industrial AI analytics helps organizations enhance operational reliability, optimize assets and proactively manage risk

Designed for industries such as high-tech and process manufacturing, energy, chemicals and life sciences, Spotfire helps organizations transform complex data into actionable intelligence through interactive analytics, explainable AI and collaborative exploration. Industrial firms seeking to enhance operational visibility, improve decision-making and scale analytics across their enterprise will find this report a valuable resource for understanding Spotfire's analytical capabilities.

Spotfire brings analytical insight to heterogeneous data trapped in specialist tool silos

Founded in 1996, Spotfire is an independent business unit inside Cloud Software Group and was previously part of TIBCO Software. Decades of technology investment have left industrial firms with powerful but disconnected specialist systems and siloed data, hampering engineering problem-solving. Industrial AI analytics solutions provide a connected decision layer spanning operational technology (OT) and information technology (IT) systems (see Verdantix Market Insight: From Fragmented Systems To Industrial Agility – The Rise Of Industrial AI Analytics). Spotfire positions its visual approach as an AI-augmented decision layer that brings siloed data together to drive insights for a broad range of engineering and operations use cases. To understand more about Spotfire, Verdantix spoke to Brad Hopper, VP Vertical Markets, and Steven Schneider, General Manager. We found that Spotfire:

- **Enables collaboration by connecting engineering, data science & ops teams in a unified analytical environment.** Spotfire combines interactive visualizations, machine learning (ML) and advanced analytics in one platform, with analytical context made available to the domain expert as they explore and seek answers. Data scientists can package Python and R models as reusable data functions that engineers then run through point-and-click interfaces, removing a common hand-off bottleneck between the two groups.
- **Brings deep experience in the high-tech manufacturing and energy sectors.** Spotfire's analytical capabilities are best suited to complex industrial operations characterized by a diversity of engineering data types, where precision is paramount and interdisciplinary decision-making is necessary, such as aerospace, medical device manufacturing, life sciences, semiconductors and upstream oil and gas. Public reference customers include Diamondback Energy, Enel, Hemlock Semiconductor, Liberty Energy, Renesas and STMicroelectronics.
- **Bridges IT and OT data environments.** Spotfire links enterprise business data with operational and engineering data held in specialist systems such as AVEVA PI historians, and in cloud platforms such as Databricks and Snowflake, so that different teams (engineering, data science and operations) can analyse process, product and asset data together in a single view, rather than in isolated tools.

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Spotfire's visual approach to analytics enhances core production metrics such as yield, asset performance and quality control

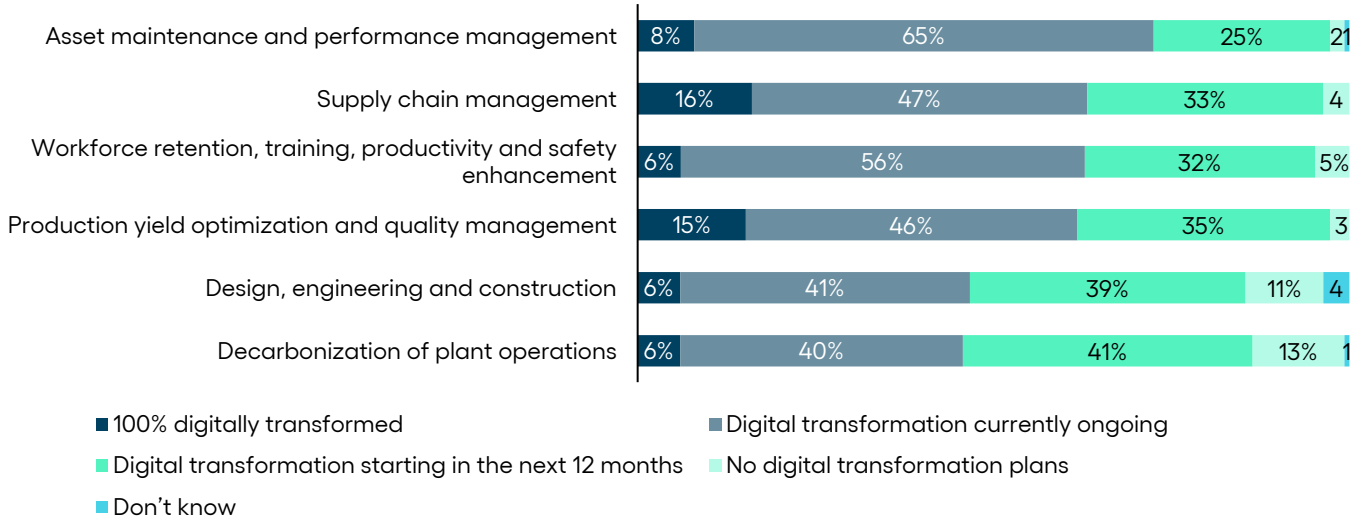
As an independent business unit of Cloud Software Group focused on high-tech manufacturing and energy, Spotfire offers a visual industrial AI analytics platform that bridges IT and OT data and enables cross-functional collaboration between engineering, data science and operations teams. Verdantix finds that industrial AI analytics platforms that improve operational performance are becoming increasingly vital across industry. Key capabilities of Spotfire's platform are:

- **Integration of siloed systems and data to support highly specific workflows and enterprise-wide analytics.** By connecting engineering, operations and contextual business data, Spotfire enables shared analysis across functions supporting manufacturing-centric use cases such as process characterization, process control, equipment performance analytics, production surveillance, metrology analytics and others. Spotfire Industry Pro pairs industry-specific visualizations with the algorithms behind them: advanced trend views with time-series functions, specialized geoanalytics and 3D views with supporting calculations, and dynamic charts with data quality computations – all configurable into analytical applications that capture a firm's best practice. Spotfire Industry Pro also features a series of industry-tailored 'accelerators' – pre-defined templates for specific problem-solving tasks – such as the Intelligent Equipment Accelerator for tracking production-line performance against overall equipment effectiveness (OEE) metrics and the Data Replay Accelerator for replaying historian data around an anomaly.
- **Unified statistical analysis, ML and data preparation for industrial insight.** Spotfire Industry Pro builds in robust statistical, ML and visual data preparation capabilities, extensible through onboard Python and R interpreters, and includes Spotfire Statistica for building and deploying data science and ML pipelines. Spotfire's embedded conversational and agentic AI helps users select appropriate methods, automate analysis steps and interpret results.

Figure 1

Current stage of industrial digital transformation

Which statement best describes your firm's level of digital transformation for the following activities?



Note: Data labels are rounded to zero decimal places; percentages less than 5% are written as numbers.
Source: Verdantix Global Corporate Industrial Transformation Survey 2026

N=333

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- **Industry-specific workflows for high-value use cases.**
  Spotfire helps domain teams investigate production performance through workflows tailored to their operating environment, from yield and defect analysis to asset reliability, process stability and quality improvement. In semiconductor fabs, for instance, equipment commonality analysis helps trace yield excursions to shared tools or process steps. The 2026 Verdantix global corporate industrial transformation survey shows that 81% of firms are in the process of digitally transforming production yield optimization and quality management activities, or have already achieved such transformation to an extent (see **Figure 1** and see Verdantix Global Corporate Survey 2026: Industrial Transformation Budgets, Priorities And Tech Preferences).

- **Data access through broad connectivity to industrial data sources and native OOTB connectors.**
  Spotfire provides flexible connectivity and integrations to import operational data, bringing process, equipment, metrology and quality data into an interactive analysis where engineers can examine variation across temporal and spatial dimensions. Rather than simply visualizing data, the platform's deep connectivity protocols link directly to OT streams and Internet of Things (IoT) infrastructure to allow for real-time data integration. Additionally, its conversational and agentic AI capabilities help users identify and blend data from modern systems that support AI-based search and query.

Industrial firms seeking advanced analytics for collaborative decision-making across engineering and operations should consider Spotfire

Spotfire's visual industrial AI analytics platform is designed to help organizations analyse complex operational data through visual analytics, AI-augmented investigation, advanced data science and real-time data integration. It is therefore best suited for:

- **Firms seeking AI-augmented visual analytics to improve decision-making and performance.**
  Spotfire helps teams triage emerging issues by combining AI-assisted visual investigation with operational context, so that users can prioritize root causes and next actions. By giving engineering, operations, quality and data science teams a shared analytical environment, it supports cross-functional collaboration from problem identification through to corrective action. For example, Enel, a producer and distributor of electricity and gas, uses Spotfire to monitor the health of 56 gas turbines globally, analysing occurrences of hot and cold spots to increase turbine availability and optimize operations and maintenance costs.

- **Customers in high-tech manufacturing and energy looking to unite data silos across functions.**
  Customers operating complex, high-risk production environments stand to benefit most, particularly those whose engineering, operations, quality and data science teams must analyse time-series, process and asset data held across multiple disparate enterprise and operational systems. A Verdantix survey of 51 engineering and operations professionals found that 76% see fragmented data across specialist systems as a blocker to cross-functional analytical problem-solving (see **Figure 2**), while 66% say that interdisciplinary engineering and scientific thinking is important for addressing strategic industrial challenges (see **Figure 3** and see Verdantix Market Insight: From Fragmented Systems To Industrial Agility – The Rise Of Industrial AI Analytics). Spotfire brings data from specialist systems into a shared analytical environment equipped with industry-native visualizations and algorithms, so that engineering, operations, quality and data science teams can investigate problems together.

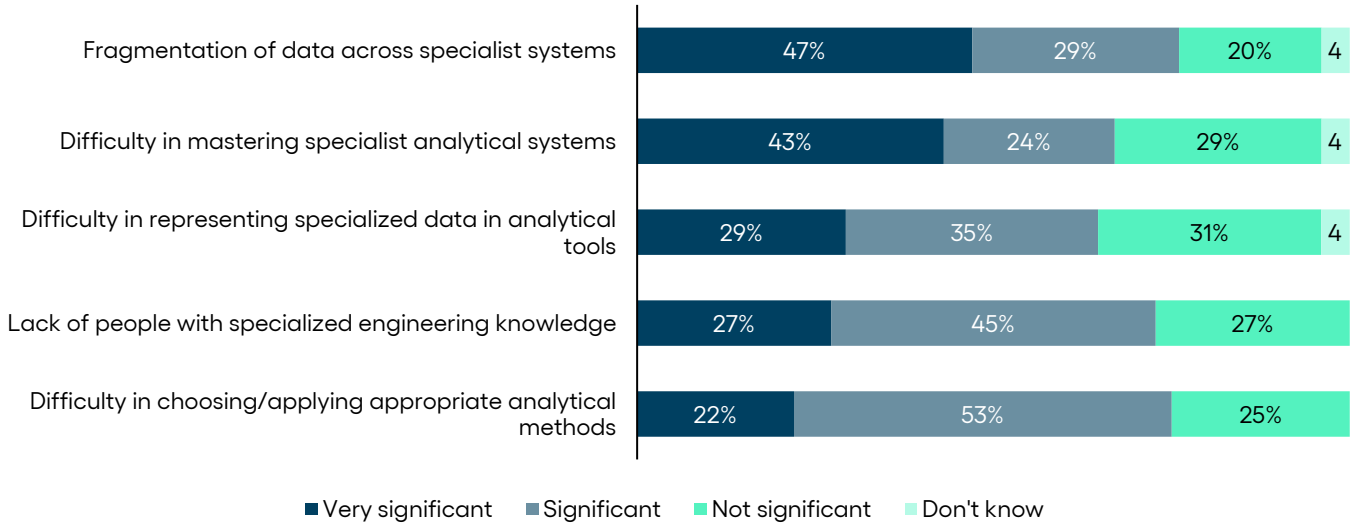
- **Teams in need of process monitoring, anomaly detection and RCA via interactive analytical apps.**
  Spotfire supports interactive time-series and statistical investigation of process conditions, equipment behaviour and measurement results, including comparisons across tools, chambers, recipes and production lots to identify emerging deviations and investigate their causes. Liberty Energy, for instance, built its Atlas real-time operations platform on Spotfire, analysing telemetry streamed every second from its hydraulic fracturing equipment. Continuously updating analytic applications replaced daily uploads and emailed reports, giving field engineers and customers shared, live visibility into frac operations.

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Figure 2

Analytical problem-solving limitations/blockers

How significant are these limitations/blockers for cross-functional analytical problem-solving in your organization?



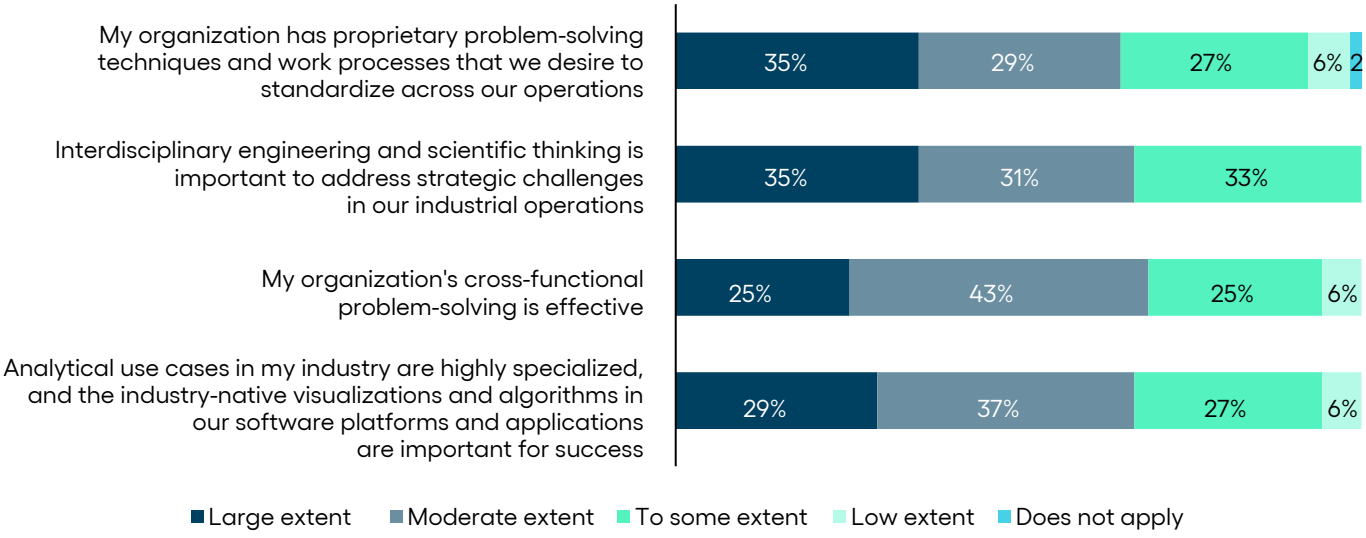
Note: Data labels are rounded to zero decimal places; percentages less than 5% are written as numbers.
Source: Verdantix Industrial AI Analytics Survey 2026

N=51

Figure 3

Cross-functional problem-solving and industry-native analytics

To what extent do these statements apply to your organization?



Note: Data labels are rounded to zero decimal places; percentages less than 5% are written as numbers.
Source: Verdantix Industrial AI Analytics Survey 2026

N=51

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